### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

**Report No:** Resident Engineer: Pursell, Gary WIR-001331 Address: 333 Burma Road **Date Inspected:** 25-Jan-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 1730 **Project Name:** SAS Superstructure **OSM Departure Time:** 600 Prime Contractor: American Bridge/Fluor Enterprises, a JV

**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Fu Guo Gang **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Oualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A **Approved Drawings:** Yes No N/A **Approved WPS:** Yes No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** plate subassembly

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

WBS Item Description Status Dwg No.

Plate Subassembly NA P546 **Fabrication Inprogress** 

Caltrans QA Inspector witnessed the heat straightening of plate identified as P546, in Bay 2, per ZPMC approved shop heat straightening procedure. Caltrans QA Inspector inquired if Caltrans Engineering approval is required. ZPMC Quality Control (QC) Inspector, Mr. Zhang Jiadi stated that the plate was within 3/1000 deviation; requiring no engineering approval for heating straightening. Caltrans QA Inspector requested to see ZPMC work instruction document for performing the heat straightening. Mr. Zhang Jiadi stated that the maximum deformation is about 2mm's and the document is unavailable at the time of Caltrans QA Inspector's observation. Caltrans QA Inspector ZPMC shop worker applying heat with the use of a hand held oxygen/fuel flame type torch. ZPMC monitored the applied heat to the plate, with the use of a hand held device, identified as an infrared laser temperature gun. Caltrans QA Inspector randomly observed that the maximum heat being applied to the plate is approximately 550 Celsius. The shop procedure states, maximum heat to be applied, 650 Celsius. The heat straightening of the plate appeared to be in general conformance with the shop procedure and contract documents. Following digital pictures illustrate method and verification of the heat straightening of the plate.

# WELDING INSPECTION REPORT

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## **Summary of Conversations:**

ZPMC QC Inspector, Mr. Zhang Jiadi informed Caltrans QA Inspector that ZPMC would be performing plate heat straightening and the drilling of splice plate connection on 114M mockup in Bay 2.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer